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ENVIRONMENTAL DEFENSE

finding the ways that work

February 28, 2003

Global Change Program Office
United States Department of Agriculture
Room 112- A, J. L. Whitten Building
1400 Independence Ave, NW
Washington, DC 20250- 3814

(Also submitted by e-mail to ghgcomments@oce.usda.gov)

Dear Sir or Madam:

Thank you for the opportunity to comment on the topic of accounting rules and guidelines for reporting greenhouse gas emissions and sequestration in the agriculture sector. We respectfully submit these comments and look forward to working with you and Congress in designing an effective system for accurately and comprehensively reporting greenhouse gas emissions and sequestration. Please find our comments below:

A Voluntary Reporting System: Guiding Principles

As noted in the background documents provided by USDA, federal agencies are engaged in an overhaul of a *voluntary reporting system*. This updated voluntary system will exist to better serve a market that is characterized by bilateral transactions, undertaken voluntarily, by unregulated parties.

Transactions in this voluntary market reflect wide variations in the per-ton price of emissions reductions. The variation in prices reflects wide variation in the quality of tons transacted; because parties are not bound by minimum standards of quality, buyers, in essence, "get what they pay for." And from transaction to transaction, buyers are paying for very different products that reflect the wide range of motivations for participating in the market. Some are buying emissions reductions in order to meet a transparent, verifiable voluntary cap on emissions, undertaken with some expectation of "credit" under a future regulatory scheme. Other buyers wish to promote of a responsible corporate image, others to influence policymaking, and still others on the basis of sheer financial speculation. Today's market serves all of these buyers, and prices reflect the vastly different levels of quality demanded by the diversity of buyers. The market will continue to function in this manner until policymakers enact a mandatory, nationwide cap and trade program for greenhouse gases.

A reporting system that best serves this market will guarantee buyers *transparency* regarding the origin and quality of the tons of emissions reductions and carbon sequestration they purchase. It will not—in fact, it cannot—guarantee the uniform quality of reported tons. A reporting system can guarantee "uniform quality" only when it possesses full and complete information on the origin of the reported tons. Because entities that reported under 1605(b) will decide whether and which activities to report to the new voluntary reporting system, the tons of reductions or sequestration

represented in the system will be, by definition, selective. They will reflect only the activities in our land use sector that reporting entities elect to report. Therefore, even if all tons in the voluntary reporting system are of high quality, the system will not accurately reflect total changes in sequestration and emissions our land use sector. In other words, reported tons of reductions or sequestration may be appear to be (and may in fact be) of *high* quality, but because they are based on incomplete information about how they relate to other activities in the land use sector, one cannot assume that they are of *uniform* quality.

Because the voluntary reporting system cannot guarantee tons of a high, uniform quality, these tons do not form a valid basis for "transferable credits." The term "transferable credits" implies standardized units of emissions reductions (tons), reflected by a market-determined price. So long as reported reductions and sequestration are backed by incomplete information about how they are produced and defined, a true market price—determined by trading and fungible, uniformly defined transferable offset credits—will not exist. A market of bilateral transactions and ton-by-ton evaluation of quality will persist. So, too, will prices that reflect the quality of tons reported.

The updated voluntary reporting system should be tailored to serve this market. It will do so best by serving as a kind of "information clearinghouse," where buyers can access vital information about the quality of reported tons in a highly transparent format. Rather than attempting to represent a standard quality of emissions reductions and sequestered tons, the new voluntary reporting system should strive instead to provide the maximum possible information about reported tons. Those in a position to evaluate these tons—whether today's buyer or tomorrow's regulator—will be able to do so in light of the best available information on the origin and validity of reported tons.

This type of system will not only enable enlightened evaluation of reported emissions reductions and carbon sequestration. It will also encourage creativity and experimentation in measurement and accounting methodologies. The use of sequestered carbon in environmental markets, while not new in concept, is in the early stages of growth in to a full-fledged component of a market in greenhouse gas reductions. As highlighted in the USDA meetings of January 14 and 15, 2003, scientists and policymakers have many valid questions about what constitute the best methodologies for measurement, monitoring, verification, and accounting of sequestered tons. A voluntary reporting structure that encourages innovation in these areas, with full disclosure and transparency for the benefit of buyers, scientists, and the policymaking community, would be of great service.

With this context in mind, Environmental Defense makes the following recommendations:

Organizational and Geographic Boundaries

Environmental Defense believes that entity-wide reporting of greenhouse gas emissions and sequestration should be strongly encouraged. It is only through entity-wide reporting that one may see how the emissions reductions or sequestered tons being reported relate to activities elsewhere in the same operation. Environmental Defense recognizes that determining organizational boundaries can be challenging, and recommends that USDA consider operations reported on an IRS Schedule F ("Farm Income and Loss") as an appropriate screen.

Although organization size is frequently cited as a factor in determining the feasibility of doing organization or entity-wide accounting, it need not be. Environmental Defense is currently evaluating a "Whole Farm" worksheet designed to help smaller farming operations perform entity-

wide accounting without onerous or time-consuming bureaucratic requirements. We would be happy to work with USDA to further develop this approach.

Whether or not a reporting entity chooses to perform entity-wide reporting, the scope of organizational activities reported should be fully transparent and sufficient to inform buyers or future regulators. Disclosure of selective reporting should be a prerequisite to acceptance of voluntary reporting information in to USDA's information database.

Project Activities: The Basics
USDA has asked for comments on several basic aspects of emissions reporting. They are:

- *Minimum project/activity size:* Environmental Defense believes that all emissions reductions and sequestered tons—regardless of the total tonnage represented—should be eligible to report under a voluntary system. The only firm requirement should be that all reported tons should represent real emissions reductions; that is, actual tons of emissions reduced or carbon sequestered, not alternative metrics such as emissions intensity. A reduction in emissions intensity does not equate to a reduction in emissions, and as such, is an invalid basis for a transaction in the name of atmospheric protection.

- *Eligible project activities:* Environmental Defense believes that the agriculture sector presents a large number of emissions reduction and carbon sequestration opportunities, and that environmental performance—rather than inclusion on a predetermined list of "eligible activities"—should be the basis for inclusion in a voluntary reporting regime. If USDA elects to enumerate a list of eligible activities, it should include the following:
    - Cropland and grazing land management
    - Manure methane reductions
    - Nutrient management
    - Biofuels
    - Windbreaks/shelterbreaks
    - Riparian areas restoration/maintenance

  Where relevant, use of native species in carbon-sequestering activities should be strongly encouraged.

Project Activities: International vs. Domestic
Environmental Defense has long supported crediting for emissions reductions or carbon sequestration across national borders. In the context of voluntary reporting, this should be subject to three conditions. First, project proponents should demonstrate that the reductions are not required by the laws of a foreign government. Second, reporting entities should demonstrate that the reductions are "retired" and cannot be double-counted for compliance purposes under another regulatory regime. Finally, the reporting entity should report fully on any measures taken to quantify and mitigate leakage associated with the project activity. Failure to quantify and mitigate leakage should also be reported.

Measurement and Accounting Methods
As discussed in earlier sections, the field of measurement and accounting for carbon sequestration is under intensive development. A thoughtfully structured voluntary reporting system could make a positive contribution to the development of this field by providing a transparent forum in which to

report on projects and activities that employ diverse measurement and accounting methodologies. Scientists and policymakers alike would benefit from the opportunity to view and evaluate a transparent "library" of measurement and accounting methodologies, particularly because no such "market-wide" view of the nuts and bolts of carbon sequestration and emission reduction projects exists at this time. By insisting on full disclosure of measurement and accounting methodologies, while at the same time providing great flexibility in terms of eligible methodologies, the voluntary reporting system would serve as a great resource to this emerging field.

Rather than enumerating a list of eligible methodologies, Environmental Defense recommends that USDA provide guidelines designed to elicit the most robust methodologies available. These should indicate that methodologies involving measurement of actual carbon stock changes are preferred over more indirect means, such as use of default calculations. Default calculations of atmospheric benefits are presently most useful at a high level of aggregation (e.g. state-wide or region-wide) and are, at present, more difficult to apply accurately to individual projects or parcels of land. This area of study, however, is rapidly evolving and could prove to be far more robust in the future. For this reason, use of default calculations should not be prohibited but instead should be fully disclosed and described for the benefit of buyers and policymakers. Environmental Defense believes that as carbon offset crediting evolves and becomes part of a market in greenhouse gas reductions, measurement precision will become a factor in determining the value of individual offset credits.

Guidelines on measurement and accounting methods should require that all methodologies be fully disclosed and that all methodologies carry an uncertainty estimate. Furthermore, project proponents should be encouraged to report the effect of a project activity—whether sequestration or emissions reductions—on *all* greenhouse gases. If a project proponent omits one or more greenhouse gases from their calculations, this fact should be disclosed.

Baselines and Base Years

Baseline determination methodologies are diverse, and the appropriate baseline for a project in the agricultural sector can depend greatly upon the project activity itself. Soil sequestration projects, for example, are best served by a multi-year baseline because soil carbon can vary significantly from one year to the next. A project employing trees for windbreaks, on the other hand, would be best served by a single-year baseline, because the majority of the sequestered carbon will exist in a stable, above-ground form. In sum, USDA guidelines for voluntary reporting should allow reporting entity to choose the most appropriate baseline methodology for a given project. The methodology used to determine the baseline, and the baseline calculation itself, should be fully disclosed by the reporting entity.

USDA should note that regional or even higher-level baselines are under development in some areas of the country.[1] While these assessments are preliminary, they provide some insight in to how scientists may use existing data on carbon stocks to generate accurate "carbon baseline" databases that will simplify future baseline calculations. This is a promising development, and use of this type of database should not be prohibited. It should, however, be fully disclosed.

[1] An example of this approach is the "Century Carbon Sequestration Projects" undertaken in Indiana, Iowa, and Nebraska. The report on these projects, released in May, 2002, may be requested by writing to jbrenner@nrel.colostate.edu or keithp@nrel@colostate.edu.

Permanence and Leakage

The issues of permanence and leakage, perhaps more than any other area of voluntary reporting, demand absolute transparency on the part of a reporting entity. Without a clear understanding of what measures, if any, have been taken to mitigate potential leakage effects and/or loss of greenhouse gas reductions, voluntarily reported tons are virtually worthless to any buyer or future regulator.

On the issue of permanence, it is in fact transparency—not permanence—that is critical to the integrity of a voluntary reporting system. The voluntary reporting system should contain information reflecting all measures taken—or not taken—to address permanence. These measures could include easements on land sequestering carbon, explicit assignment of liability for loss of sequestered carbon, or any of the many forms of insurance against carbon loss. If no measures are taken to address permanence, the system should alert future buyers or regulators to this fact. The extent to which a reporting entity addresses permanence should be discretionary, but the act of reporting on the measures taken should not be.

Transparency is also critical in the area of leakage assessment and mitigation. As in the case of permanence, project proponents should not be required to address leakage, but they should be required to disclose whether or not they calculate and mitigate leakage, and if so, how. If a project proponent elects not to assess and mitigate leakage, this fact should be fully transparent to a future buyer or regulator.

Full disclosure of leakage assessment and mitigation methodologies will, as in the case of measurement and accounting methodologies, shed a great deal of light on one of the more difficult issues attending carbon sequestration projects. Scientists and policymakers alike would benefit from the opportunity to study and learn from a transparent "library" of diverse projects and leakage assessment/mitigation methodologies, and it is our belief that more transparent information on real-world approaches to this topic would be of great utility. Ideally, the information collected on this topic through the voluntary reporting system could form the basis for development of highly accurate leakage assessment protocols for project types nationwide.

Verification

As in the case of baseline assessment and measurement methodologies, appropriate verification methodologies will vary depending upon the activity in question. Environmental Defense recommends that the voluntary reporting system issue a set of guidelines describing characteristics of preferred verification methodologies without ruling any one methodology eligible or ineligible. Ideally, verification of emissions reductions or carbon sequestration should be as close to physical verification of the project results as possible. Other methods, such as verification of standardized calculations or processes, are also currently used and may be most practical for some project types. Regardless of verification methodology, all reported tons should reflect whether or not they were verified, whether or not the verifier was an independent third party, and by what methodology they were verified. This information should be transparent and readily available to future buyers or regulators.

The question of who or what constitutes a qualified independent "verifier" or "third party" is complex and merits a separate set of rules to ensure that the critical function of verification is

performed by individuals who have a high level of technical expertise and freedom from all conflicts of interest.[2]

Other Issues
Although it was not specifically addressed in the USDA background paper, Environmental Defense would like to note that activities that are required under federal, state, or local law should not be eligible for reporting under this system.

USDA has raised two overarching questions in the background paper. The first is the issue of prior year reports. Environmental Defense believes that any party who voluntarily reported under the 1605(b) program in prior years should be free to update these prior year reports to meet the guidelines of the updated reporting system, though with the caveat that transparency on any and all data gaps is of paramount importance. It is likely that many who reported in prior years will, for practical reasons, be unable to provide detailed information on important issues such as leakage, permanence, and measurement uncertainty estimates. It is critically important that buyers and future regulators understand just what information about these reported tons is lacking, so that they may make informed judgments about purchasing these tons or awarding any credit for early action.

The second issue raised by USDA is that of "further action." We believe that a voluntary reporting system can serve as clearinghouse for information on many of the technical issues addressed in this paper, and as such can truly advance our understanding of how to make the most of opportunities for greenhouse gas reductions and sequestration in the agricultural sector. As noted elsewhere in this document, USDA could perform a great service to the scientific and policy communities, as well as to the nascent market, by creating a highly transparent source of information on activities to reduce greenhouse gas emissions and sequester carbon. Ultimately, the policymaking community could use the knowledge gleaned from such a system to create strong criteria for environmentally sound, project-based emissions offsets. This is not possible today, given the many shortcomings of our climate change policies and the market conditions enumerated in this document; however, thoughtful policies to create transactable units of emissions offsets could be an important component of a comprehensive, economy-wide climate policy that caps our nation's greenhouse gas emissions.

Conclusion
We thank you for the opportunity to comment on the development of a voluntary reporting system. Should you have further questions on these issues, please feel free to contact the Environmental Defense staff members listed below:

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[2] The state of California has undertaken a detailed process on this topic that would provide useful insight to USDA.